APPARATUS FOR CROSSTALK COMPENSATION IN A TELECOMMUNICATIONS CONNECTOR BRIAN CELELLA ET AL SERIAL NO. 10/716,808

ATTORNEY DOCKET NO. SIE-0157 Cantor Colburn LLP, 55 Griffin Road South, Bloomfield, CT 06002





3,6-4,5 Low 3,6-4,5 High 37.9 1,2-3,6 Low 5 3,6-7,8 High 5 1,2-4,5 Low 6 4,5-7,8 Low 6 4,5-7,8 Low 1,2-4,5 Low 1,2-4,5 Low 1,2-4,5 Low 1,2-4,5 Low 1,2-7,8 Low 1,2-7,8 Low 1,2-7,8 Low 1,2-7,8 Low	Case #	Pair Combination	Limit	NEXT loss magnitude limit 1), 4), 5)	NEXT loss phase limit 2), 3)
3,6-4,5 Central 3,6-4,5 High 1,2-3,6 Low 3,6-7,8 High 1,2-4,5 Low 1,2-4,5 Low 4,5-7,8 High 1,2-4,5 Low 1,2-4,5 Low 1,2-4,5 Low 1,2-4,5 Low 1,2-7,8 Low	Case 1	3,6-4,5	Low	≤ 36.4-20log(f/100)	$(-90 + 1.5 \cdot 1/100) \pm 1/100$
3,6-4,5 High 1,2-3,6 Low 3,6-7,8 High 1,2-4,5 Low 1,2-4,5 Low 4,5-7,8 Low 4,5-7,8 Low 1,2-7,8 Low 1,2-7,8 Low	Case 2	3,6-4,5	Central	(37.0 ± 0.2) -20log(f/100)	$(-90 + 1.5 \cdot 1/100) \pm 1/100$
1,2-3,6 Low 3,6-7,8 Low 3,6-7,8 High 1,2-4,5 Low 4,5-7,8 Low 4,5-7,8 Low 1,2-7,8 Low	Case 3	3,6-4,5	High	≥ 37.6-20log(f/100)	$(-90 + 1.5 \cdot f/100) \pm f/100$
1,2-3,6 High 3,6-7,8 Low 1,2-4,5 Low 1,2-4,5 High 4,5-7,8 Low 4,5-7,8 High 1,2-7,8 Low	Case 4	1,2-3,6	Low	< 46.5-20log(f/100)	$(-90 + 1.5 \cdot 1/100) \pm 31/100$
3,6-7,8 Low 1,2-4,5 Low 1,2-4,5 High 4,5-7,8 Low 1,2-7,8 Low 1,2-7,8 Low	Case 5	1,2-3,6	High	≥ 49.5-20log(f/100)	$(-90 + 1.5 \cdot f/100) \pm 3f/100$
3,6-7,8 High 1,2-4,5 Low 1,2-4,5 High 4,5-7,8 Low 1,2-7,8 Low	Case 6	3,6-7,8	Low	< 46.5-20log(f/100)	$(-90 + 1.5 \cdot 1/100) \pm 31/100$
1,2-4,5 Low 1,2-4,5 High 4,5-7,8 Low 1,2-7,8 High	Case 7	3,6-7,8	High	≥ 49.5-20log(f/100)	$(-90 + 1.5 \cdot t/100) \pm 3t/100$
1,2-4,5 High 4,5-7,8 Low 4,5-7,8 High 1,2-7,8 Low	Case 8	1,2-4,5	Low	≤ 57-20log(f/100)	90 ± (30·f/100)
4,5-7,8 Low 4,5-7,8 High 1,2-7,8 Low	Case 9	1,2-4,5	High	≥ 70-20log(f/100)	any phase
4,5-7,8 High 1,2-7,8 Low	Case 10	4,5-7,8	Low	≤ 57-20log(f/100)	$90 \pm (30.4/100)$
1,2-7,8 Low	Case 11	4,5-7,8	High	≥ 70-20log(f/100)	any phase
	Case 15	1,2-7,8	Low	< 60-20log(f/100)	any phase

When the measured plug NEXT loss is greater than 70 dB, the phase limit does not apply.

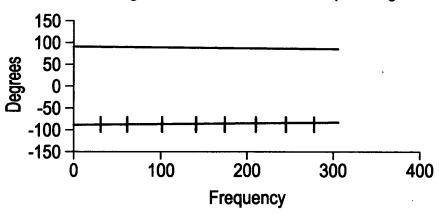
When a low limit NEXT loss calculation results in values greater than 70 dB, there shall be no low limit for NEXT loss. Magnitude limits apply over the frequency range from 10 MHz to 250 MHz.
 Phase limits apply over the frequency range from 50 MHz to 250 MHz.
 When the measured plug NEXT loss is greater than 70 dB, the phase limit can be a low limit NEXT loss calculation results in values greater than 70 dB
 When a high limit NEXT loss calculation results in values greater than 70 dE

When a high limit NEXT loss calculation results in values greater than 70 dB, the high limit NEXT shall revert to a limit of 70 dB.

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FIG. 2





H Plug PhaseConnector Phase

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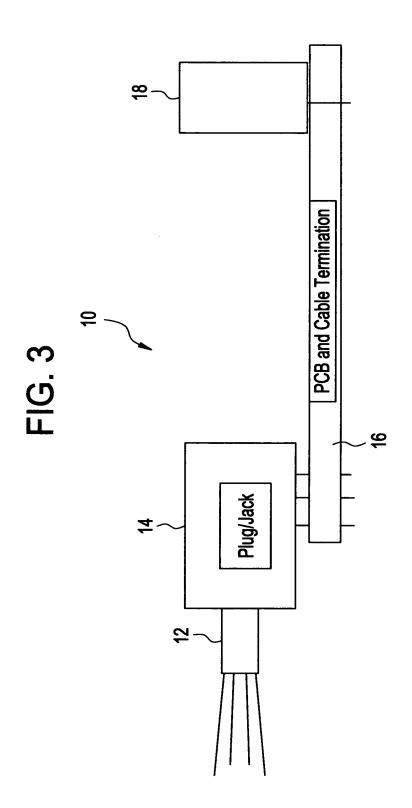


FIG. 4

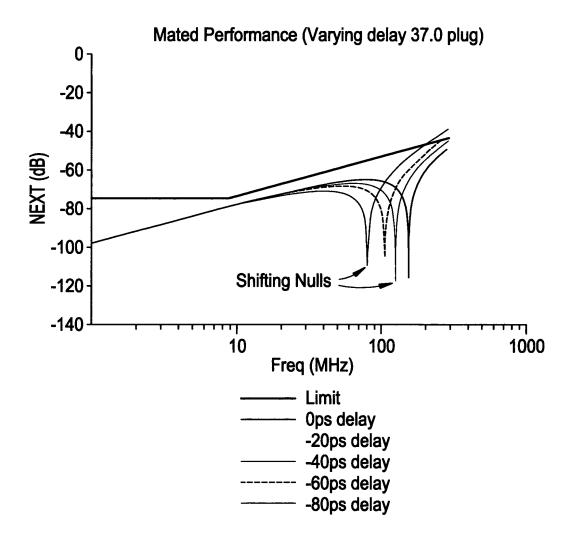


FIG. 5

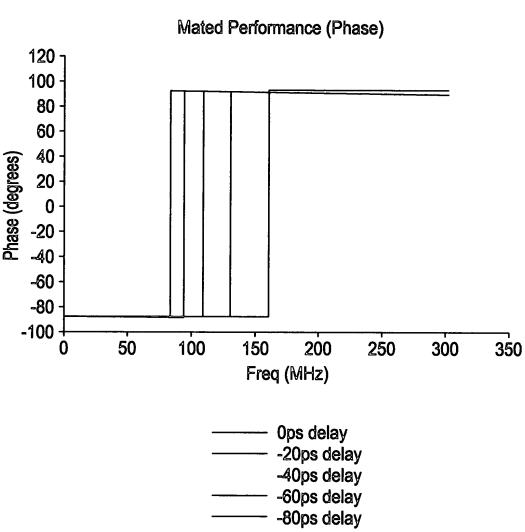


FIG. 6

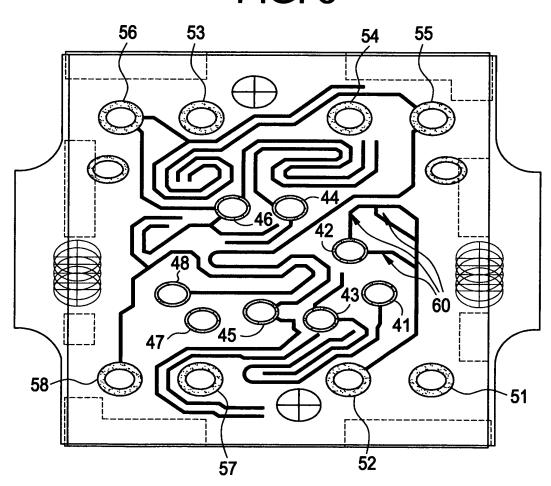
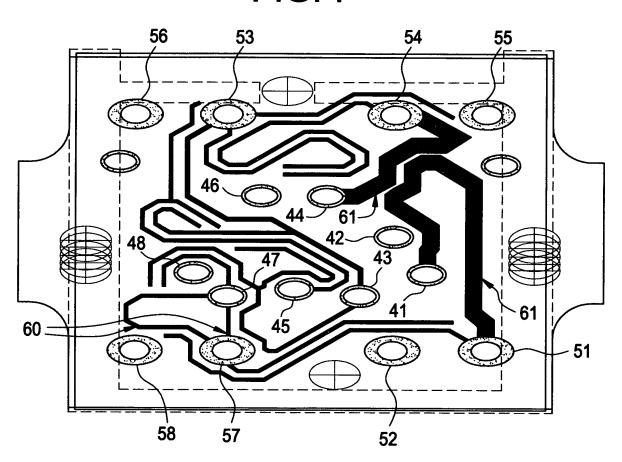


FIG. 7



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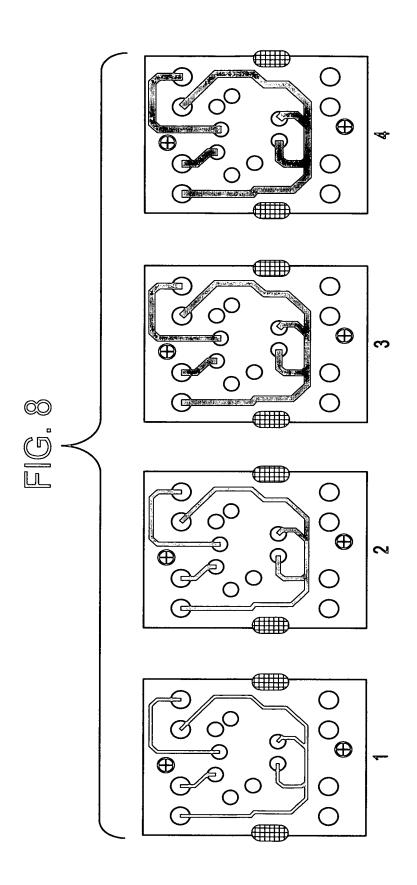
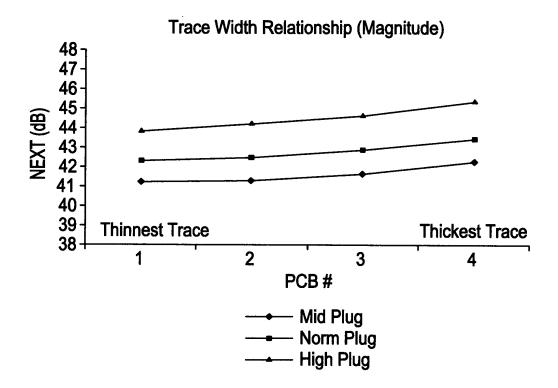


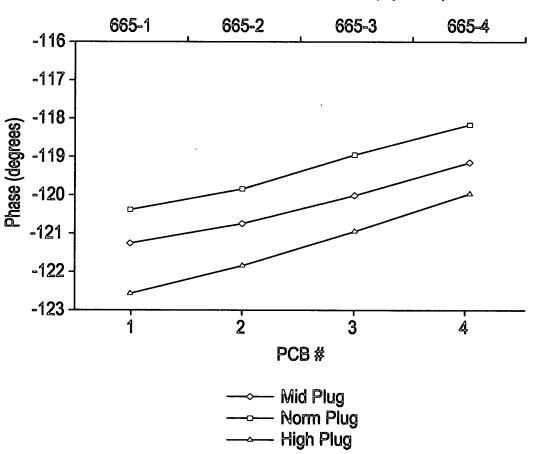
FIG. 9



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FIG. 10

Trace Width Phase Relationship (Phase)



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FIG. 11

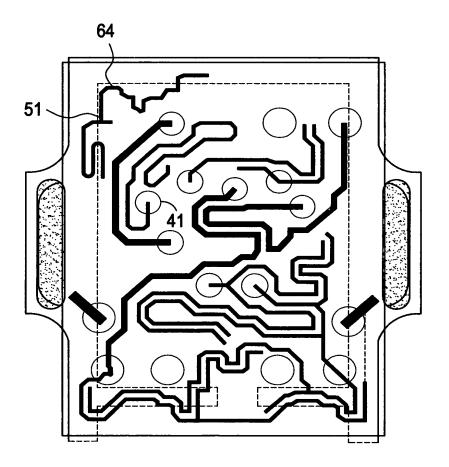
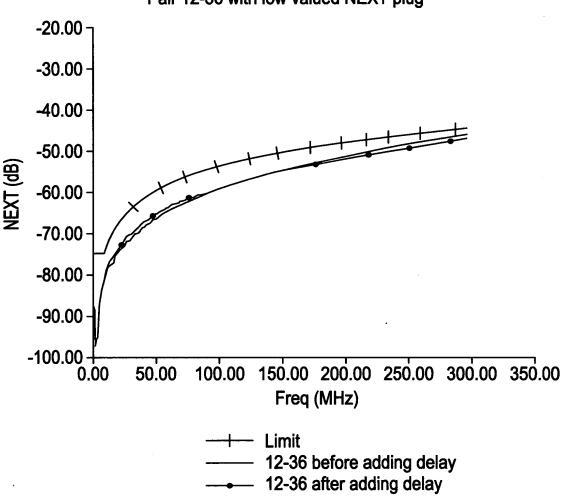


FIG. 12





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FIG. 13

